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1 BOB JEFFERSON: My name is Bob Jefferson, I'm an independent consultant. I've been involved in the research and development of the transportation of radioactive materials for the past 25, plus, years. I'd like to address a few of the misconceptions that surround this business.

Let me start with the original procedure by which the regulations were developed. The regulations were initially developed in 1946 in this country, later adopted internationally in the 50s by the International Atomic Energy Agency, which is an arm of the United Nations and are currently uniformed worldwide. Those regulations were based on two concepts.

The first concept being that you need to protect this material against human fail ability, so you must put it in some sort of container and the container is to provide all of the protection. Secondly, the container is to provide protection for the public against all sorts of things. Because it was clearly recognized from the very beginning, there will be accidents. So with those two bases in mind, the regulations were developed. Those regulations, as I said, are now uniform worldwide and tens of thousands of shipments of these materials, used fuel, have been made worldwide in the past 340 years. There has never been an accident severe enough to cause any release. Zero. There have been eight accidents in this country, three of those involved empty casks. There was one accident severe enough to kill the driver but that was simply because the truck went upside down in the bar ditch. It had nothing to do with the fact he was carrying radioactive material.

In the mid '70s, early '70s, concerns arose similar to what is being expressed here today about, number one, the regulations and, number two, the packages.

So my organization embarked upon a series of tests in the period of time, about 12 years, that I was involved in it at Sandia Labs, my organization did some 1,500 tests. Starting with component tests, subscale tests and full scale tests. We, in fact, wrecked full size trains, full size trucks, all of this sort of stuff, and full size casks, to see the effect. What we were trying to do is two things. And we started first on what are the capabilities of the engineering community to design these casks and to evaluate them to make sure they perform the way they're intended.

In these tests, these full scale tests, we invited the public in. For the first test we had 900 people show up. I went before these people and I said, "this is what we will predict what will happen in this test." We then conducted the test and we allowed everybody to go up and see whether or not the prediction matched what actually happened. And in every case it did. And the reason for that is the engineering tools, the techniques that are used to design this, are very, very well established, have been established for centuries now. And are continually being improved so our accuracy continues to go up.

So we've validated the engineering capability. The second thing we did was to study the accident environment. We, for instance, conducted a study where we looked at every severe accident that's ever happened in this country. For instance, in Rosemead, California when, during the Vietnam period, a munition train with something like 30 cars full of 500 pound bombs was caught in a fire and the bombs detonated. We looked at that and said if the cask had been on the track next to it, what would have been the result? Zero. We looked at the Livingston,

Louisiana fire where there was a train wreck and a fire that went for four days, and we said if the cask had been involved in that track, in that wreck, what would have been the result? Zero. We went through the tunnel fire in Oakland and -- where a gasoline tanker sideswiped an empty bus and 13 people were killed. What would happen if the cask would have been in the tunnel with all that? The answer is zero. We have looked at all of these severe accidents. When they're talking about a statistic, and that's exactly what it is, as somebody said earlier, about what is the likelihood of this happening? The likelihood is essentially zero.

In order to breach one of these casks -- and understand we're talking about a container with walls, solid metal, four to eight inches thick. In order to break that cask open, we would have to hit something like solid steel at 120 miles an hour. Not just a flat plate but a corner. So as a result of all of these kind of things and the robustness of these containers, we have a very safe system. But we go even further, we say we're going to make sure that these are conducted, these transportations are conducted in a way to minimize risk. So, for instance, the Department of Transportation says, you must use the interstate highway system when transporting these goods. Now, as pointed out earlier, the State of Ohio has the authority to modify that route if they so choose, as long as they can analyze the alternate route and prove that it's just as safe as the interstate. So that's the first thing, is routing.

The second thing is all of the vehicles that will be used. This includes the rail car and the truck. All of those vehicles will be inspected at the point of departure a full, what we call CVSA inspection, for safety of the vehicle. No other materials are transported that way. So you can rest assured of a competent vehicle. For instance, on the railways, these will be transported only on cars with rolling bearing journals instead of sleeve journals. The rail car has a shelf coupler, which means it will not uncouple from the cars on either side. So if there's a derailment, it goes off with all the other cars and that reduces a rollover probability. So there's a lot of attention to the vehicle itself to make sure that that contributes to the safety.

And finally, there's a choice of drivers. I don't know how many of you have ever had a moving violation, but if you have, you can't get a job driving one of these trucks. These drivers have to have a record -- they can have a parking ticket, don't misunderstand me. But if they have a moving violation in the past five years, they can't drive. If they've had a moving violation while they're moving this stuff, they lose their job. So we've gone above and beyond the regulations in requiring safe situations.

Now, as a financial thing I'd like to submit an article from Foreign Affairs, the current issue. This article is titled, "The Need for Nuclear Power." Thank you.